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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,076	11/13/2001	Craig Nemecek	CYPR-CD01210M	4880

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WAGNER, MURABITO & HAO LLP
Third Floor
Two North Market Street
San Jose, CA 95113

EXAMINER

PROCTOR, JASON SCOTT

ART UNIT	PAPER NUMBER
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2123

MAIL DATE	DELIVERY MODE
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06/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/992,076

Applicant(s)

NEMECEK, CRAIG

Examiner

Jason Proctor

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-13 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 2-13 and 16-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-20 were rejected in the Office Action of 30 January 2007. Applicants' submission on 12 April 2007 has amended claims 2-13 and 16-20; cancelled claims 1, 14, and 15; and presented new claims 21 and 22.

Claims 2-13 and 16-22 are pending in this application.

Claims 2-13 and 16-22 are allowable but objected to as set forth below.

Response to Arguments – 35 USC § 112

1. The previous rejection of claims 7, 8 and 19 under 35 U.S.C. § 112, second paragraph, is withdrawn in response to the amendments to these claims.

Response to Arguments – 35 USC § 103

2. The previous rejections under 35 U.S.C. § 103 based upon the Johnson, Grunert, and Jackson references are withdrawn in response to the amendments to the claims and Applicants' remarks.

Claim Objections

3. Claims 3, 9, 12, 17, 21, and 22 are objected to because of the following informalities:

Independent claims 9, 21, and 22 establish a "target microcontroller" and subsequently refer to "an emulated target microcontroller." According to the disclosed invention and the plain meaning of these terms, the "target microcontroller" and the "*emulated* target microcontroller"

refer to the same device. In contrast, the phrase “target microcontroller *emulator*” would be interpreted as referring to, for example, the “virtual microcontroller 220” of the disclosure.

Claims 3, 12, and 17 similarly refer to the “*emulated* target microcontroller.”

Independent claims 9, 21, and 22 recite the phrase, “wherein lock step of said microcontroller code execution is verified by comparing said first memory with said second memory *solely on occurrence of any one of said microcontroller code execution encounters a breakpoint* and said microcontroller code execution halts” which appears to contain grammatical errors. This limitation is interpreted in accordance with the specification, page 20, lines 1-4, and is understood to mean “comparing ... *when said microcontroller code execution encounters a breakpoint*” or equivalent.

Appropriate correction is required.

Allowable Subject Matter

4. Claims 2-13 and 16-22 are allowed over the prior art of record.
5. The following is a statement of reasons for the indication of allowable subject matter:

The closest prior art of record fail to disclose or suggest all of the claimed elements of independent claims 9, 21, and 22. In particular, the closest prior art of record fails to disclose or suggest:

(Claim 9) “...a target microcontroller... and [a target microcontroller emulator] which is not identical to and emulates operation of said target microcontroller... executing the microcontroller code on the target microcontroller and on the [target microcontroller emulator] in lock step by executing same instructions using same clocking signals... comparing content of the

first memory and content of the second memory [when] said executing step encounters a breakpoint and said executing step halts... and if lock step of said executing step is not verified... debugging said microcontroller code”

(Claims 21 and 22) “...a target microcontroller... and [a target microcontroller emulator] which is not identical to and emulates operation of said target microcontroller... wherein said target microcontroller and said [target microcontroller emulator] execute said microcontroller code, wherein said microcontroller code execution occurs in lock step by executing same instructions using same clocking signals... comparing said first memory with said second memory [when] said microcontroller code execution encounters a breakpoint and said microcontroller code execution halts, and wherein a mismatch between said first and second memories initiates debugging of said microcontroller code”

in combination with the other recited elements of the invention.

As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

6. This application is in condition for allowance except for the following formal matters:

Claim objections for claims 3, 9, 12, 17, 21, and 22 as set forth above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm’r Pat. 1935).

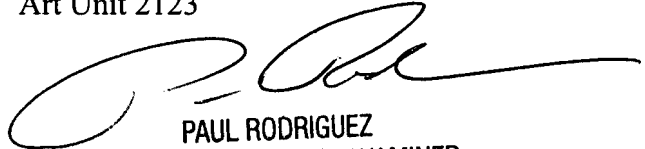
A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor
Examiner
Art Unit 2123


PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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